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ESTABLISHING RELIABLE WIRELESS
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ABSTRACT

A first device such as a wristwatch may include a front face at which a display is disposed and a rear face at which a rear housing wall is mounted. Antenna structures may overlap the rear housing wall and may be operable to transit and receive relatively high frequency signals through the rear housing wall to a communication with a second device such as a wireless power transmitting device for the wristwatch. The second device may also include antenna structures that overlap a top surface housing. Respective sets of magnetic structures may be provided in the first and second devices to align the two devices and to form a reliable wireless communication link between the two devices. The first and second devices may include respective antenna arrays that include pairs of antenna elements that are selectively used to form a reliable wireless communication link.

